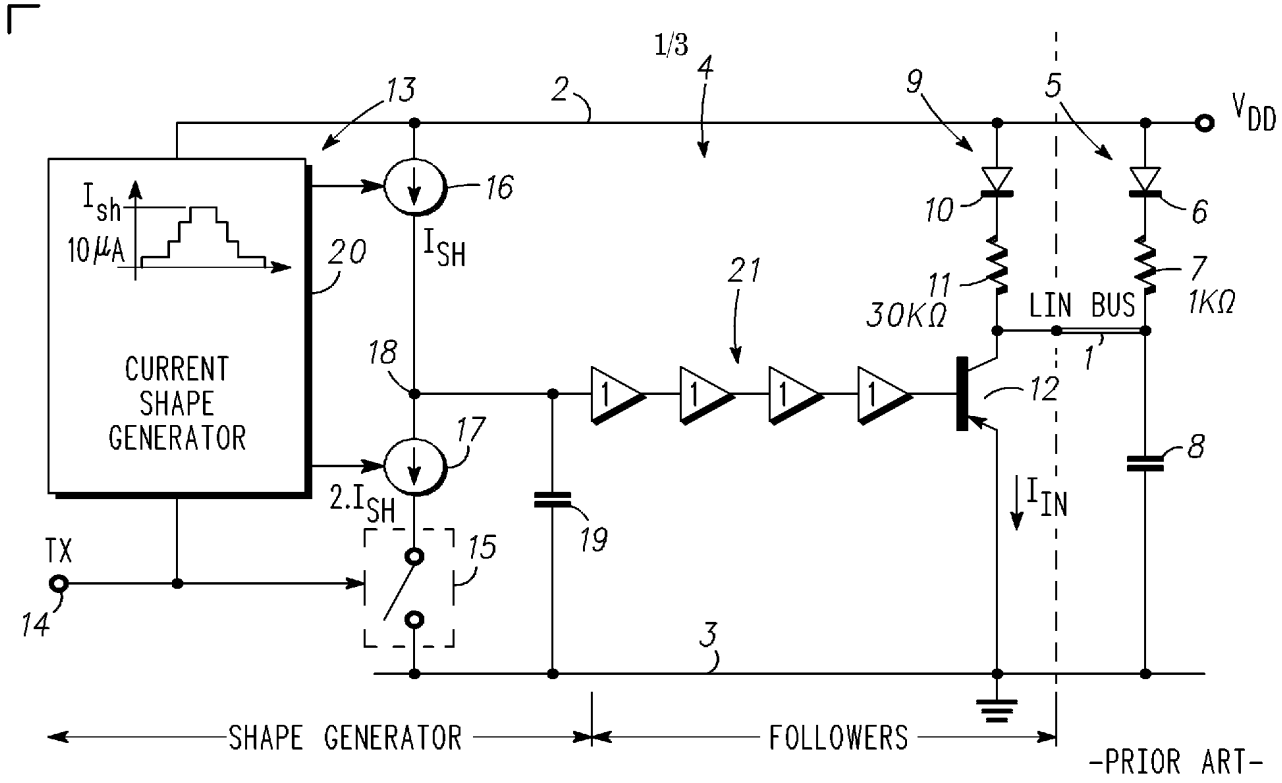
1/3
13
2
4
9
5
V_{DD}
16
I_{sh}
10μA
20
I_{SH}
10
6
21
11
30KΩ
7
1KΩ
LIN BUS
18
1
CURRENT
SHAPE
GENERATOR
12
17
8
$2.I_{SH}$
I_{IN}
19
TX
15
14
3
SHAPE GENERATOR
FOLLOWERS
-PRIOR ART-

FIG. 1

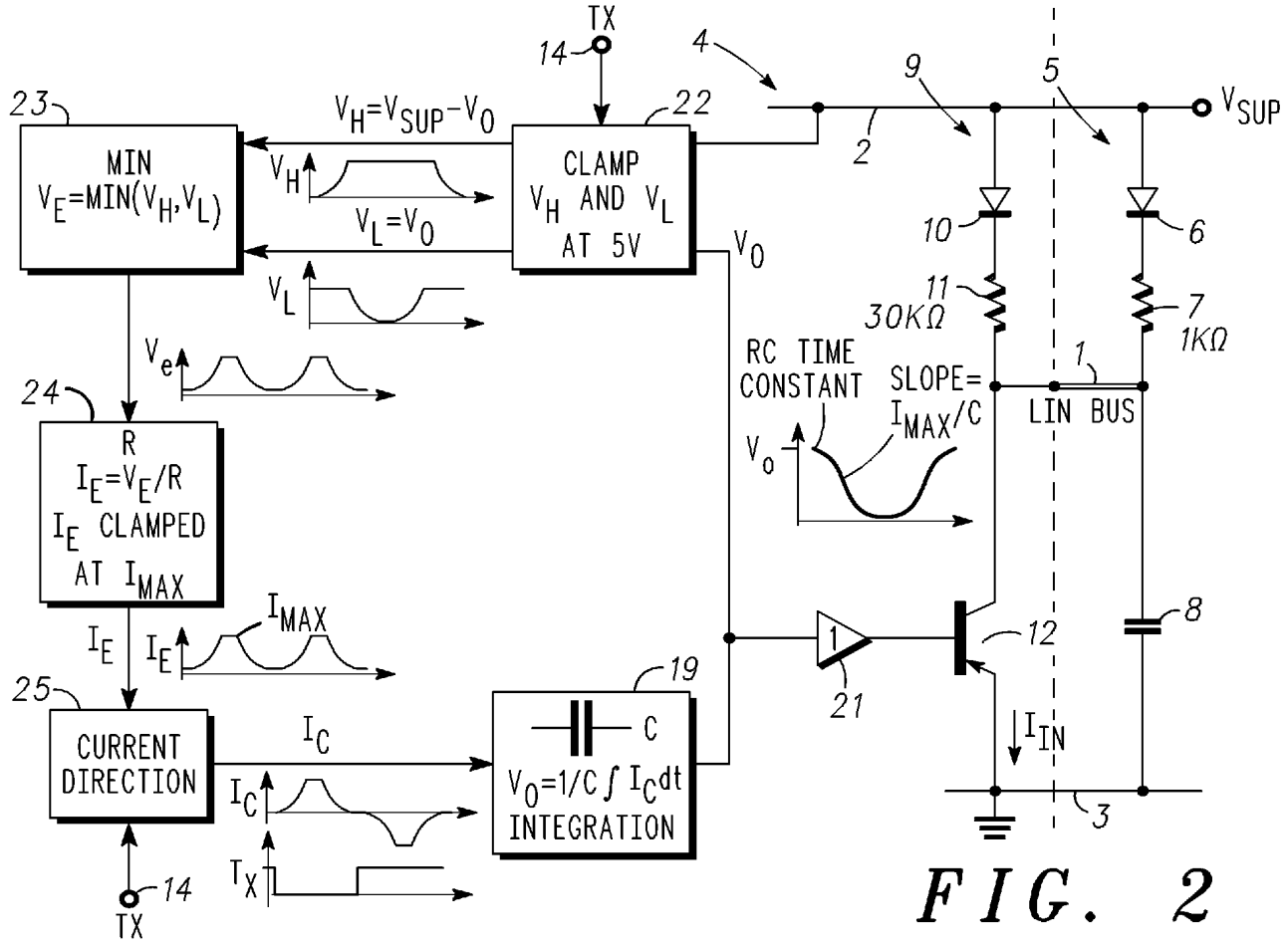
TX
14
4
9
5
V_{SUP}
23
$V_H=V_{SUP}-V_O$
22
MIN
$V_E=MIN(V_H,V_L)$
V_H
CLAMP
V_H AND V_L
AT 5V
$V_L=V_O$
V_O
2
10
6
V_L
11
30KΩ
7
1KΩ
V_e
RC TIME
CONSTANT
SLOPE=
I_{MAX}/C
1
LIN BUS
24
V_o
R
$I_E=V_E/R$
I_E CLAMPED
AT I_{MAX}
I_{MAX}
I_E
I_E
12
8
19
25
21
C
CURRENT
DIRECTION
I_C
I_{IN}
$V_O=1/C\int I_C dt$
INTEGRATION
I_C
3
14
TX
T_X

FIG. 2

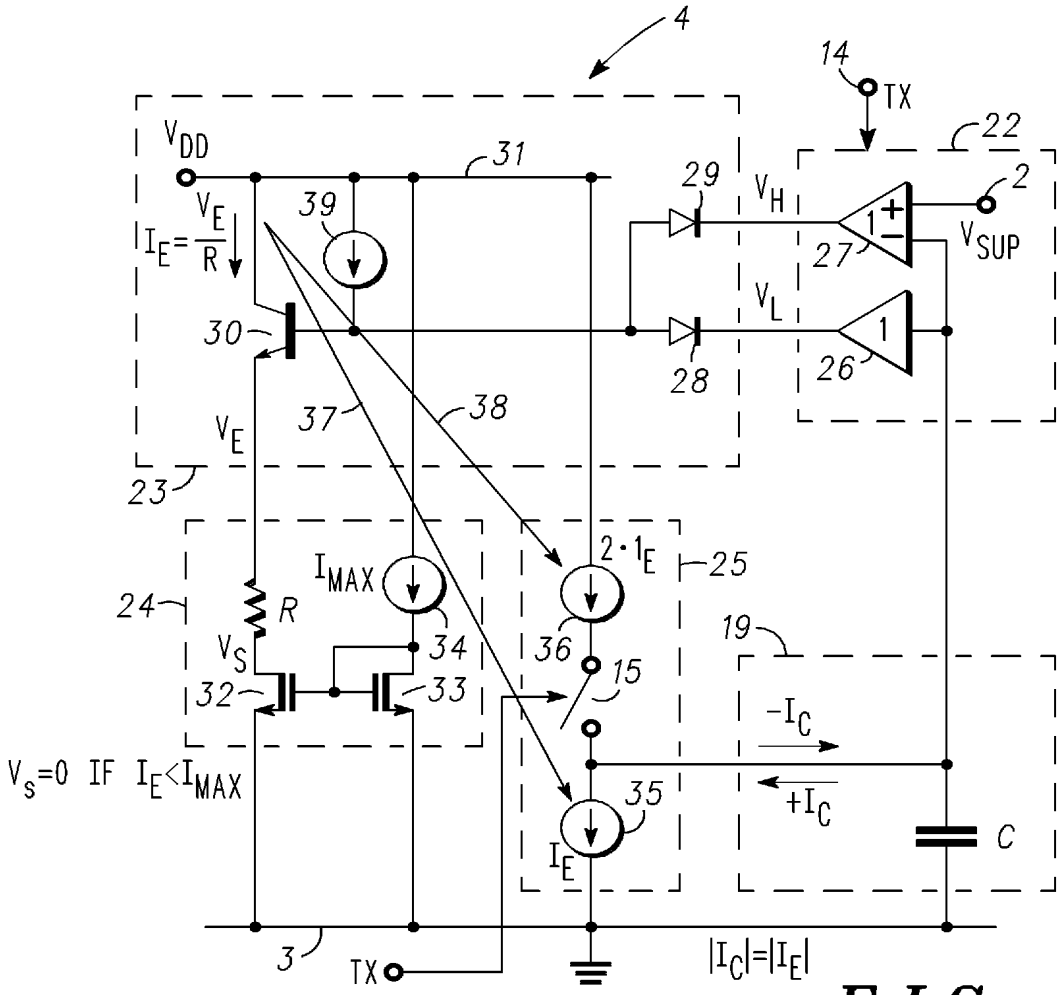

FIG. 3

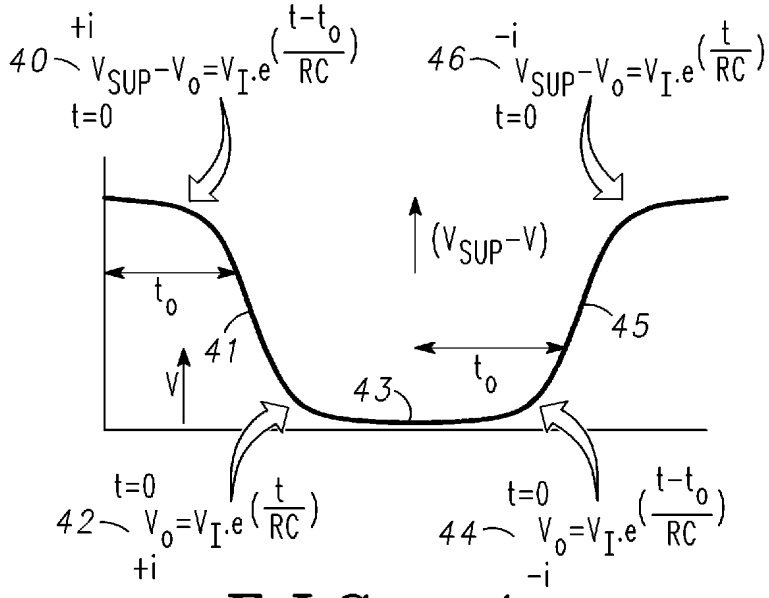

FIG. 4

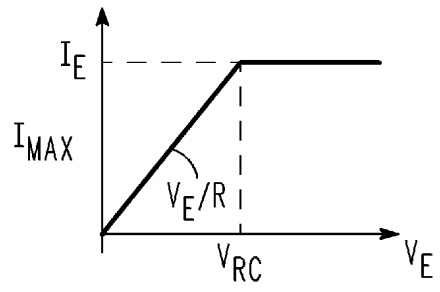

FIG. 5

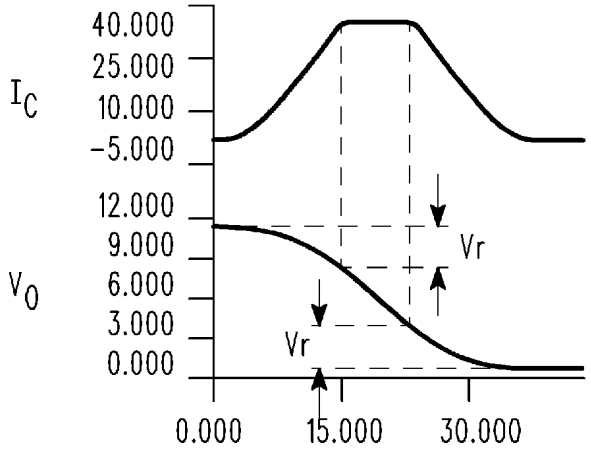

FIG. 6

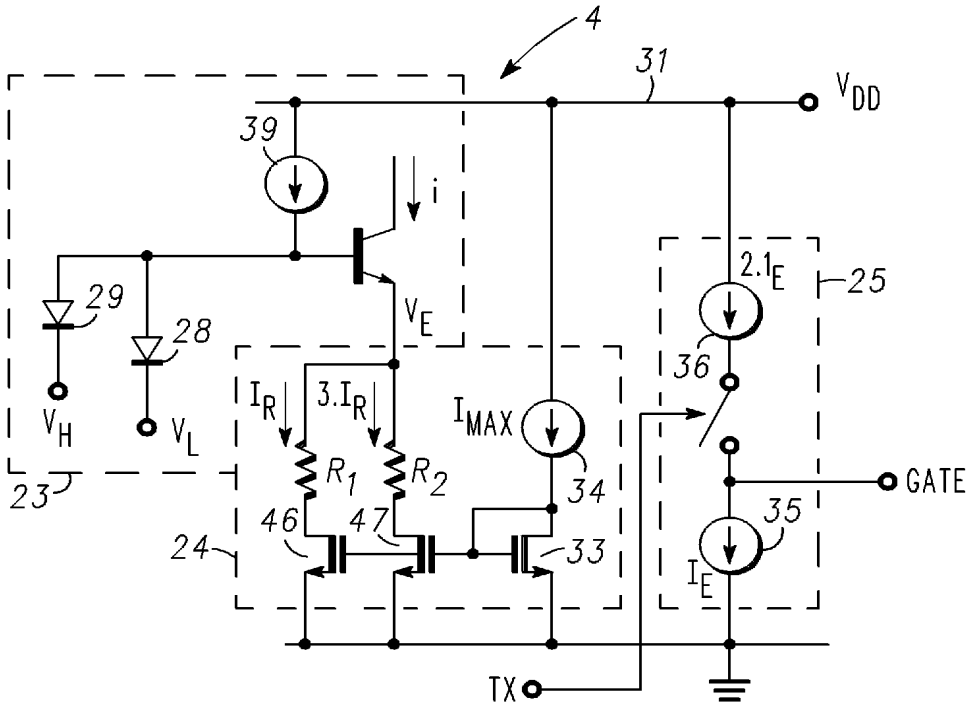

FIG. 7

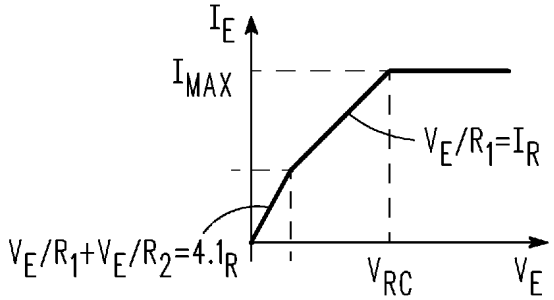

FIG. 8